

SMART Strategies to Increase Student Achievement

Based on Marzano Research

<http://www.ascd.org/publications/educational-leadership/nov09/vol67/num03/Teaching-with-Interactive-Whiteboards.aspx>

Voting Devices – encourage all to participate and provide instant feedback. The key is to **probe, discuss, support and defend** answers.

Ideas if you don't have SMART Response:

- Individual white boards
- page protectors with templates
- fist to five
- thumbs up or down
- stand or sit
- cast your vote
- secret vote

Probing questions:

- *What from your notes, reading or our discussion supports this being the correct answer?*
- *Why can't the other choices be correct?*
- *Give us an example that supports your answer.*
- *I see Billy chose ____ and Molly chose _____. I would like you to defend your choices and then we will vote as a class on which we believe is correct.*

Graphic representations – be sure visuals are clear, large enough and enhance understanding of concept. (Be sure to give credit to your sources)

- *google and provide URL for resources*
- *Link to online curriculum resources*
- *Link or download movies, simulations and more at teachersdomain.org, teachertube.com or Youtube.com*

Real Player to download video and drag to page (Use Internet EXPLORER)

1. Go to <http://www.real.com/realplayer/search> and download.
2. Hover your mouse over any video and have the ability to download.
3. **SAVE** the video to your desktop.
4. **DRAG** the Real Player video directly into Notebook page and size or from **FILE** menu choose **Flash Video File**.
5. Copy the URL where you got the video.

Embed shockwave flash items into Notebook page

1. You **MUST** be in Firefox!!!
2. Go to tools tab
3. From **TOOLS** menu select **PAGE INFO**.
4. Highlight **MEDIA** tab.
5. Look for .swf files (embed). Select .swf file and **SAVE AS** and save to desktop .
6. Open Notebook and select **Insert ---Flash File** or simply **DRAG** in from desktop and size.
7. Copy the URL on the page.

Reinforcers – incorporate reinforcers that provide immediate feedback and **focus follow up discussion on why the answer is correct or incorrect.**

- Lesson Activity Toolkit activities
- Internet resources (see handout)
- Erase to reveal
- Move to reveal

Follow-Up Questions after reinforcer shows correct answer was provided:

- *How did you get that?*
- *Is there another answer that was not provided that could also work?*
- *Can you restate the answer in your own words starting with the word ____?*
- *What would be the opposite of that?*
- *Which of the terms in this activity do you feel is most important to the understanding of the chapter? Explain.*

Chunking - putting information into small, meaningful segments which include **check points** and **processing time**

- *Be sure to pace lessons so there is time for students to analyze and interact mentally with content. (Timer and Specific questions to ponder individually, with a partner and whole class)*
- *Take advantages of pages, bars and boxes to make lessons clear and manageable.*

Previewing -

- What do you think you know about topic?
- Connect to last chapter
- Chapter Walk
- picture reveal
- song
- video
- vocabulary introduction
- provide a difficult task

Reviewing -

- *organize*
- *rate*
- *sort*
- *create an analogy*
- *watch a video clip*

Summarizing and Reflecting

- Refer to Bloom's Revised Taxonomy for question starters
- support or provide evidence
- timer
- provide keywords to use

Interacting with Content (Physically & Mentally)

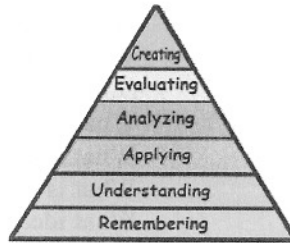
- allow students to manipulate information to make connections and construct understanding
- Students can use Notebook on computer lab computers to interact & create.

Higher-Order Questioning based on Bloom's Revised Taxonomy

Bloom's Revised Taxonomy

The *old terminology* used the following:

- ♣ Knowledge
- ♣ Comprehension
- ♣ Application
- ♣ Analysis
- ♣ Synthesis
- ♣ Evaluation



The *new terminology* uses these terms:

- ♣ Remembering
- ♣ Understanding
- ♣ Applying
- ♣ Analyzing
- ♣ Evaluating
- ♣ Creating

Level I—Remembering *Exhibit memory of previously-learned materials by recalling facts, terms, basic concepts and answers*

Questions

What is...?
Where is...?
How did _____ happen?
Why did...?
When did...?
How would you show...?
Who were the main ...?
Which one?

How is...?

When did ____ happen?
How would you explain...?
How would you describe...?
Can you recall...?
Can you list three...?
Who was...?

Level II—Understanding *Demonstrate understanding of facts and ideas of organizing, comparing, translating, interpreting, giving descriptions and stating main ideas*

Questions

How would you classify the type of ...?
How would you compare...? Contrast...?
State or interpret in your own words...?
How would you rephrase the meaning?
What facts or ideas show...?
What is the main idea of ...?

Which statements support...?
Explain what is happening...what is meant...?
What can you say about...?
Which is the best answer?
How would you summarize...?

Level III—Applying *Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way*

Questions

How would you use...?
What examples can you find to ...?
How would you solve _____ using what you have learned?
How would you show your understanding of ...?
What approach would you use to ...?
How would you apply what you learned to develop...?

What other way would you plan to ...?
What would result if...?
Can you make use of the facts to ...?
What elements would you choose to change...?
What facts would you select to show...?
What questions would you ask in an interview with ...?

Level IV—Analyzing *Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.*

Questions

What are the parts or features of...?
How is ____ related to ...?
Why do you think...?
What is the theme...?
What motive is there...?
What inferences can you make?
What conclusions can you draw from the evidence?
How would you classify...?

How would you categorize...?
What evidence can you find to support your conclusion?
What is the relationship between...?
What is the distinction between...?
What is the function of...?
What ideas justify...?

Level V—Evaluating *Present or defend opinions by making judgments about information, validity of ideas or quality of work based on a set of criteria.*

Questions (many of these questions should be followed with a prompt to explain)

Do you agree with the actions (outcome)...?
What is your opinion of ...?
How would you prove (disprove)...?
Assess the value or importance of...?
Would it be better if...?
Why did they (the character) choose...?
What would you recommend...?
How would you rate the ...?
What would cite to defend the actions of ...?
How would you evaluate...?
How would you determine...?

What choice would you have made?
What would you select?
How would you prioritize...?
What judgment would you make about...?
Based on what you know, how would you explain...?
What information would you use to support the view...?
How would you justify...?
Why was it better that...?
Which idea is more (less) useful...?

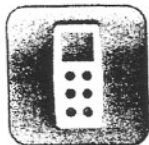
Level VI—Creating *Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions*

Questions

What changes would you make to solve...?
How would you improve...?
What would happen if...?
Elaborate on the reason for...?
Propose an alternative...?
Invent...?
How would you adapt ____ to create a different...?
How would you change (modify) the plot (plan) ...?
What could be done to minimize (maximize)...?
What could be combined to improve (change)...?
Suppose could _____. What would you do?
How would you test...?
Predict the outcome if...?
How would you estimate the results for ...?
What facts can you compile...?
Construct a model that would change...?
Think of an original way to ...?
What way would you design...?

SMART INTERNET RESOURCES

Teachers Love Smartboard's Website	http://www.smartboards.typepad.com/
Smartboard Lessons Podcast	http://www.pdtogo.com/
Innovative Teacher Network	http://us.itn.partnersinlearning.com/Pages/Welcome.aspx
Extract Flash Video Files from YouTube to embed them in Notebook Files	http://kej.tw/flvretreiver/
Smartboard Teacher Exchange	http://exchange.smarttech.com/default.aspx?WT.mc_id=ExchBadge
Lesson Activity Toolkit	http://education.smarttech.com/ste/en-US/Ed+Resource/Software+Resources/toolkit/
Smartboards4us	http://smarterboards4us.wikispaces.com/
The Whiteboard Blog	http://www.whiteboardblog.co.uk/
Interactive Website Listing	http://rsteacher.edublogs.org/interactive-whiteboards/
SMARTBoard Revolution Ning	http://smartboardrevolution.ning.com/
Chris Bests Technology in Teaching Podcast	http://gettingsmarterwithsmartboards.blogspot.com/
Teacher Tube Video Tutorials with Smartboard	http://www.teachertube.com/groups_home.php?urlkey=sb2
Our Podcast Site	http://smartboard.libsyn.com/
Dave Sladkey's School Website	http://dsladkey.googlepages.com
Naperville Central High School	http://www.ncusd203.org/central/
Naperville Community District 203	http://www.ncusd203.org/central/
Dave Sladkey's Reflections of a High School Math Teacher Blog	http://teachhighschoolmath.blogspot.com/
Brain Breaks Website	http://brainbreaks.blogspot.com



Setting up the SMART Response system to collect and store student responses

This *Quick Reference* guides you through the initial setup of Teacher Tools software. This guide assumes that you've installed SMART Response assessment software but haven't yet performed the initial setup of Teacher Tools software. Before you begin, make sure that you install SMART Response assessment software on the computer that you want to use to deliver SMART Response assessments.

Loading Teacher Tools software

You can use Teacher Tools software to organize your classes and store results and student responses from SMART Response assessments. You can also use Teacher Tools to analyze the responses and create reports.

To load Teacher Tools software

- 1 Click the **SMART Response Software** icon in the Windows notification area
 - 2 Select **Click here to start a class!** under the Teacher Tools heading. The Welcome to Teacher Tools window appears.
 - 3 Type a classroom name for your receiver
- Note:** The classroom name appears on the student clickers. Choose a name that students will easily recognize as your class.
- 4 Click **Begin**

Welcome to Teacher Tools

Clickers • Class Lists • Gradebook • Reports

Type a classroom name for your receiver, and then click Begin.

Ms Brown

Your classroom name appears on clickers. It can be a maximum of 40 characters.

Begin

Creating a SMART Teacher file

The SMART Response system saves your students' responses to a Teacher file so that you can easily access these responses from any computer with SMART Response software installed. Use Teacher Tools software to create a teacher file.

To create a Teacher file

- 1 Click **Create a new SMART Teacher file and set up your class lists** from the Teacher Tools screen. The Gradebook Information window appears.
- 2 Type your classroom information into the fields. This information will appear in reports printed from Teacher Tools software.
- 3 Click the **Browse** button to specify a save location for your SMART Teacher file

Note: Your SMART Teacher file contains all of your student information, assessment results and grades. To keep this information accessible from multiple computers, you may want to save it to your school's network or a USB drive.

Click **Done**. The Anonymous Mode window appears.

Gradebook Information

This information appears in printed reports.

Your name and school

Title: Ms.

First name: D

Last name: Brown

School: Allard School

District: Littlefoot District No. 77

Your SMART Teacher file

Save in: C:\Documents and Settings\Ms Brown\My Documents\D Brown teacher

Done

You're now ready to deliver assessments using the SMART Response assessment system in Anonymous mode. Anonymous mode allows students to enter responses to questions but doesn't store student results. To store student results you must create a class in Teacher Tools software.

Adding a class

You can add classes to the Teacher Tools software that will enable you store and analyze responses associated with individual students.

To add a class

- 1 Switch to *Gradebook view*
- 2 Click **Add a Class** in the Teacher Tools side menu
- 3 Type your class information into the fields
- 4 Click **Add**. The class displays in the Gradebook list.

Class Information
Create class lists to save assessment results and track performance.

Name: This is required.

Period:

Location:

Passing grade: 50 %

Creating a class list

You can enter student information for each class manually to create or update class lists in Teacher Tools.

To add student information to each class

- 1 Click the **Students** tab at the top of the window
- 2 Click **Add** or select **Edit > Add**. The *Properties window* appears below the table.
- 3 Ensure that the **Privacy** is set to *Off*
- 4 Type the student information into the fields. Press TAB on your keyboard to advance to the next field.
- 5 In the **Tag** field, type in terms that you want to associate with that student

Rachelle A. Properties Performance Results

Student ID: 2534

First name: Rachelle

Last name: A

E-mail:

Tags: Freeder School:Mountainview Elementary.

Use a comma (,) to separate tags
e.g., Houser, JFF

Use a colon (:) to create categorized tags
e.g., student's name: Gender, Male, Freeder School
Westlands Elementary

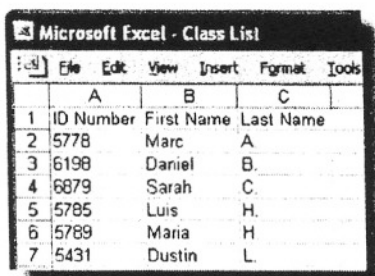
Tip: Tag students with keywords to track specific characteristics of a student. You can use these characteristics to measure and analyze student performance in greater detail.

- 6 To add another student, repeat steps 2 – 5

Importing a class list

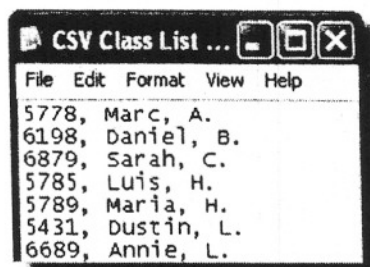
If you've already created class lists in Microsoft® Excel® spreadsheet software, in Senteo 1.0 assessment software or as Comma Separated Values (CSV), you can import them into SMART Response assessment software without having to re-enter student information.

Format your class lists according to the following guidelines before importing them



	A	B	C
1	ID Number	First Name	Last Name
2	5778	Marc	A
3	6198	Daniel	B
4	6879	Sarah	C
5	5785	Luis	H
6	5789	Maria	H
7	5431	Dustin	L

Microsoft Excel class list formatting



File	Edit	Format	View	Help
5778, Marc, A.				
6198, Daniel, B.				
6879, Sarah, C.				
5785, Luis, H.				
5789, Maria, H.				
5431, Dustin, L.				
6689, Annie, L.				

Comma Separated Values (CSV) class list formatting (ID Number, First Name, Last Name)

Note: Senteo 1.0 class lists don't require any formatting to import into SMART Response.

To import a class list

- 1 Select **File > Import > Students**. The *Import* window appears.
- 2 Select the class that you want to import the class list into
- 3 Select the file type of your class list file
- 4 Browse to and select the file
- 5 Click **Open**